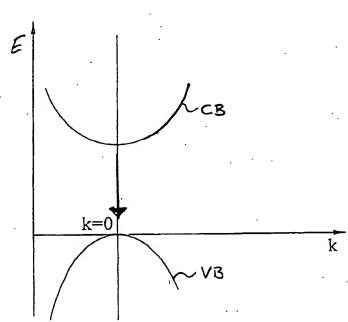
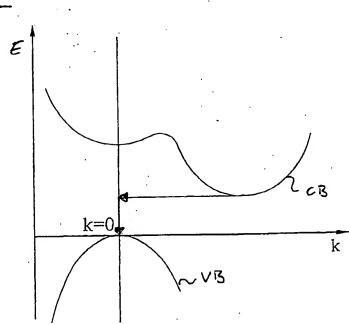
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Attorney: Andrew D. Gathy Sierra Patent Group, Ltd.







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Title: A SEMICONDUCTOR STRUCTURE FOR USE IN THE NEAR INFRARED REGION AND A METHOD OF

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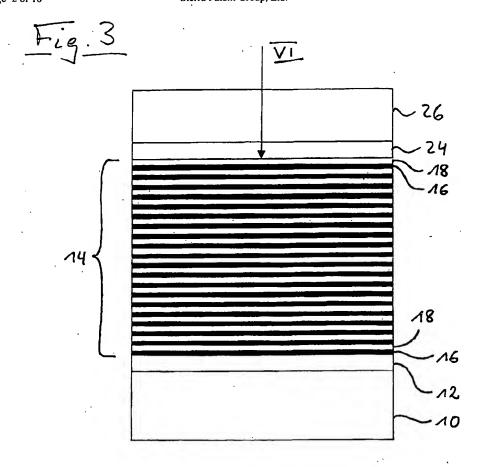
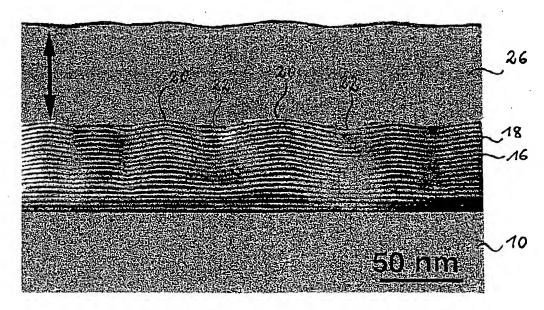


Fig. 4

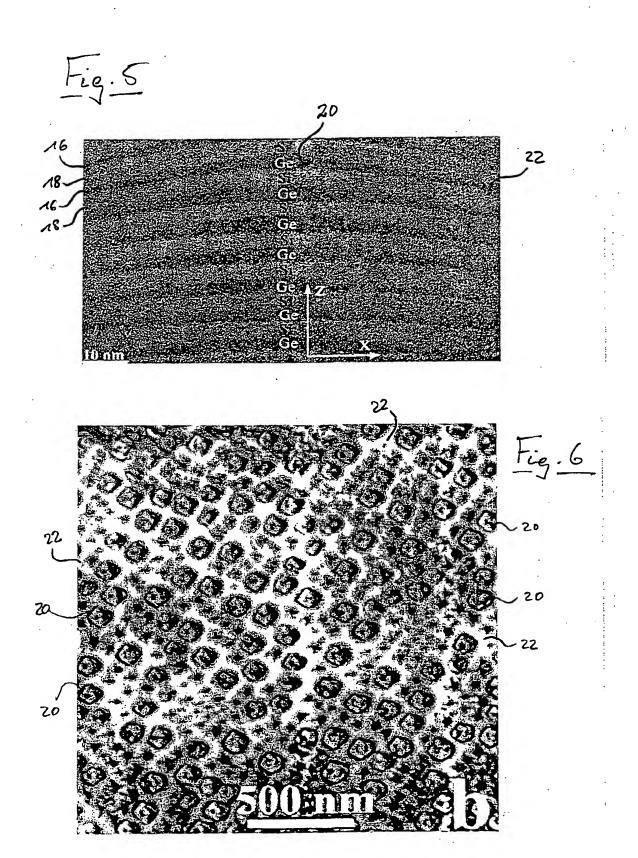


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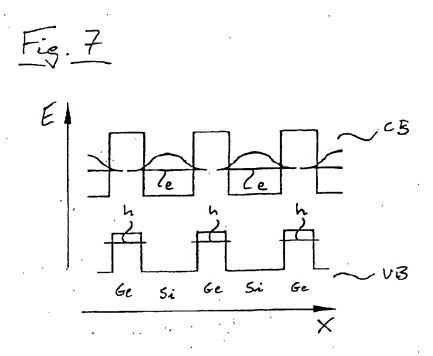


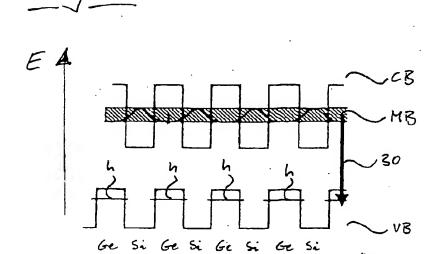
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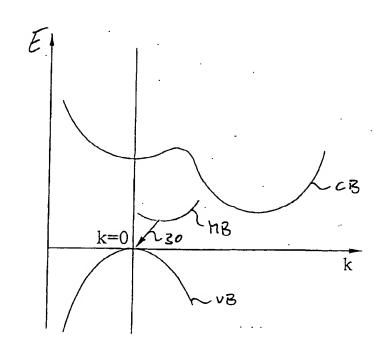
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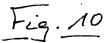


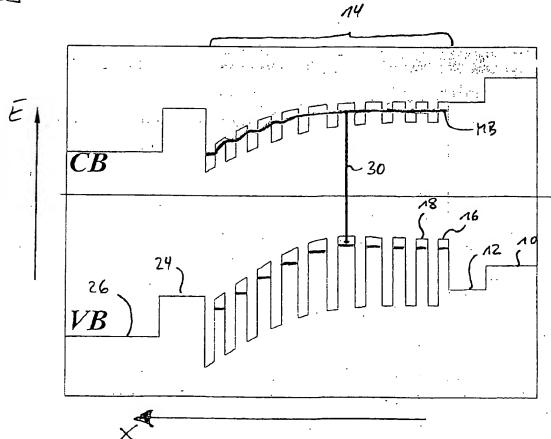


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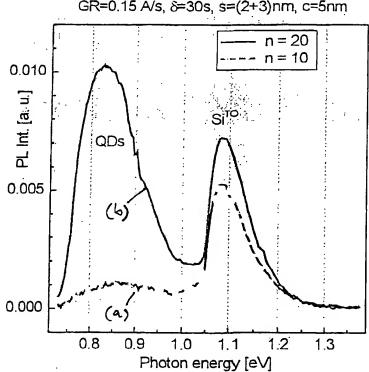


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PL vs number of layers (n) T = 300 K $E_{\text{exc}} = 2.54 \text{ eV}, P = 5 \text{ W/cm}^2$ GR=0.15 A/s, δ =30s, s=(2+3)nm, c=5nm



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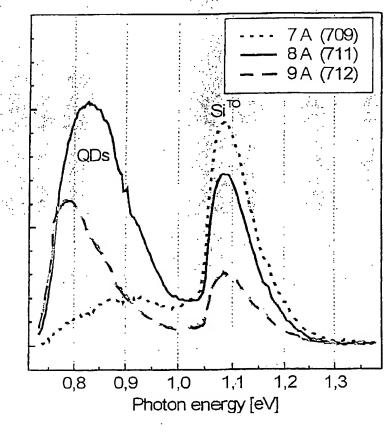
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Fig. 12

PL Intensity [a. u.]

PL vs Ge thickness (d) T = 300 K E_{exc} = 2.54 eV, P = 5 W/cm² GR=0.15 A/s, c=5nm



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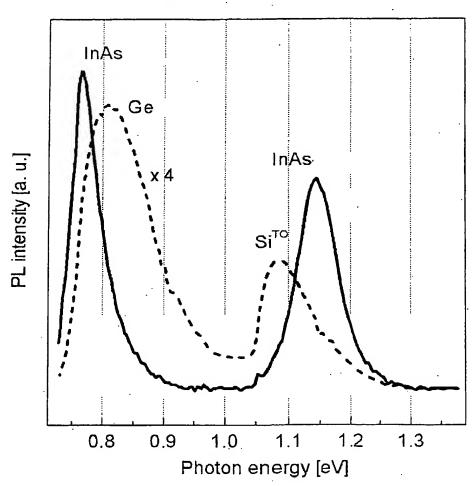
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Fig. 13

Ge-QDs vs InAs-QDs (LTLS)

PL at T = 300 K

 $E_{exc} = 2.54 \text{ eV}, P = 1 \text{ W/cm}^2$



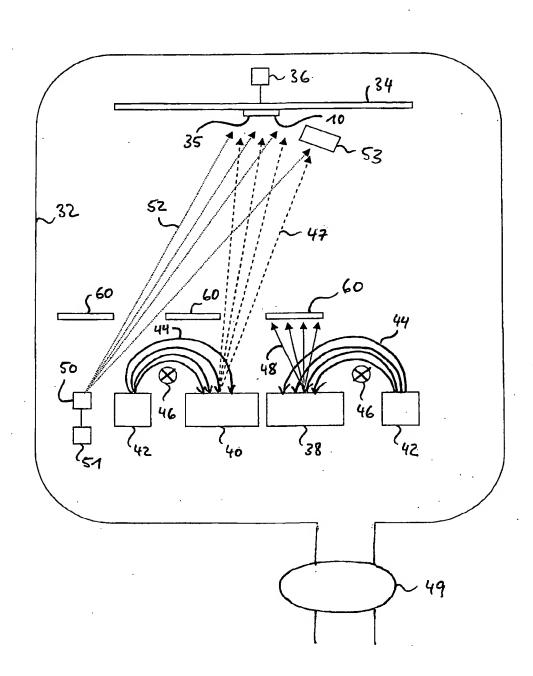
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